

FIGURE 1

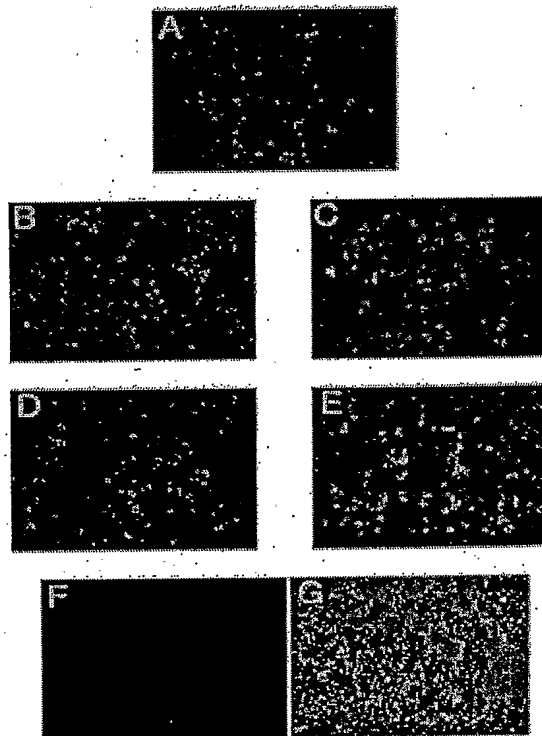


FIGURE 2

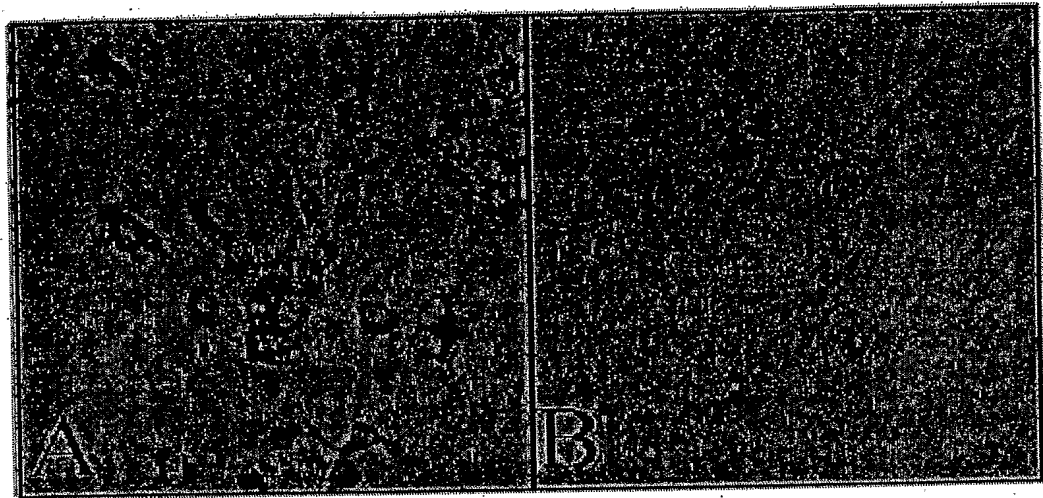


FIGURE 3

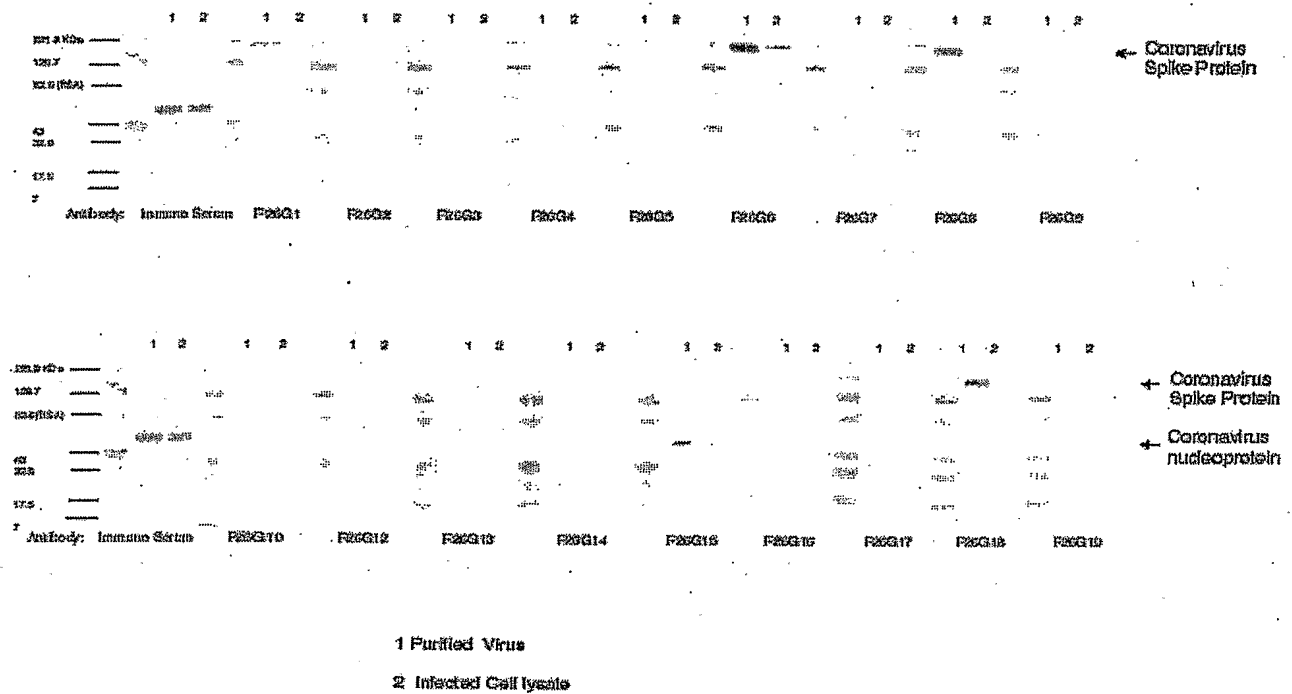


FIGURE 4

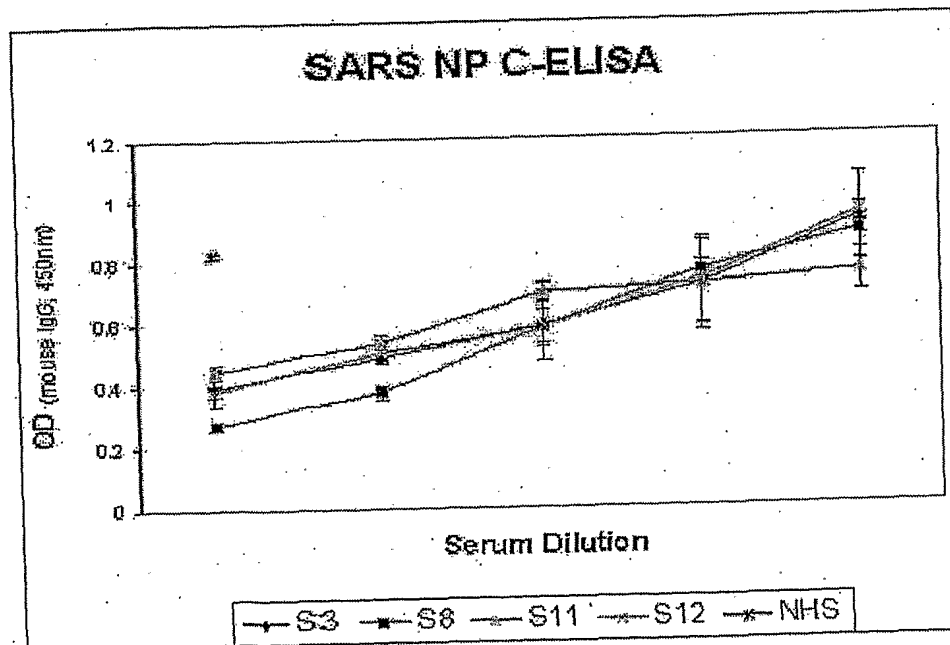
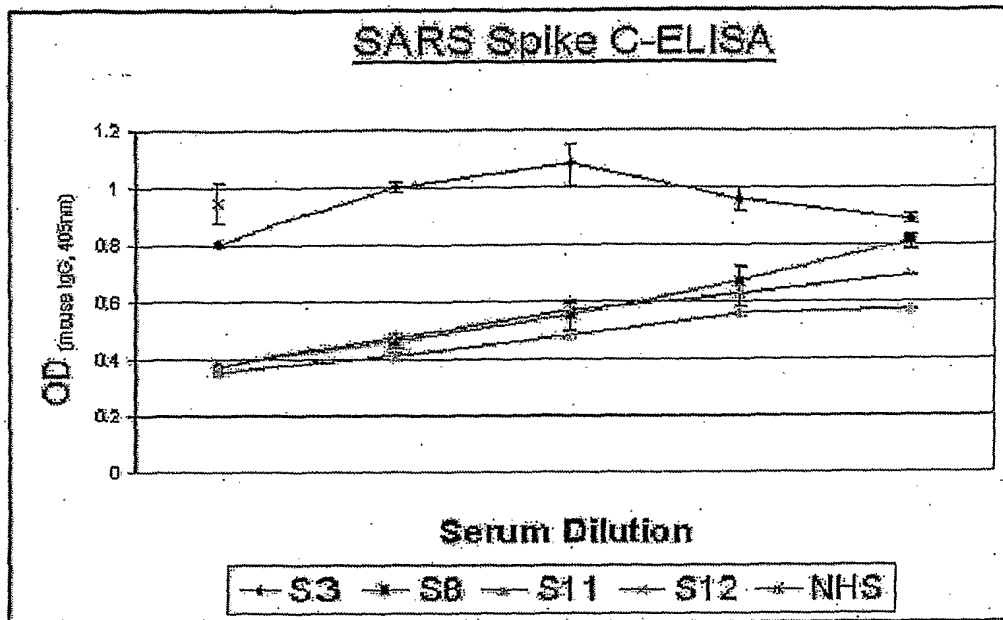


FIGURE 5

SARS CoV mAb V_L alignment

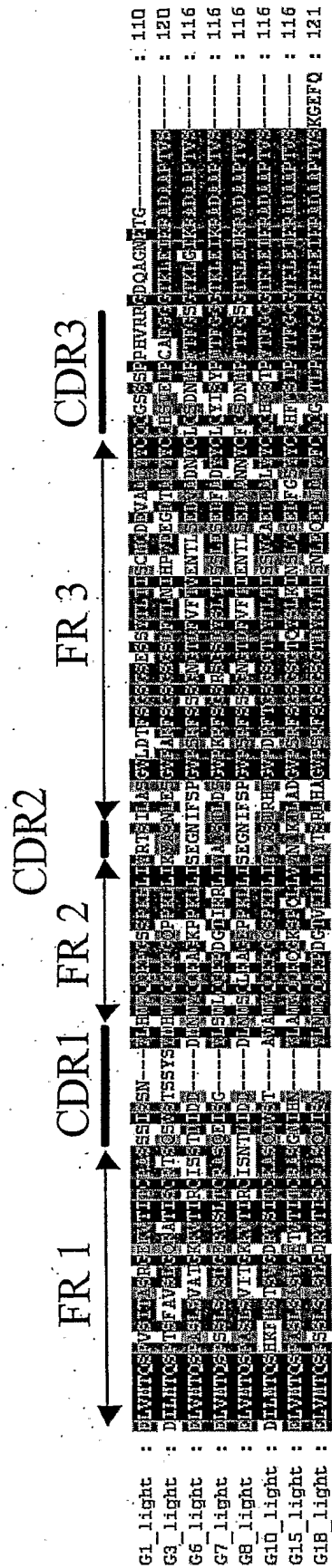


FIGURE 6A

SARS CoV mAb V_H alignment

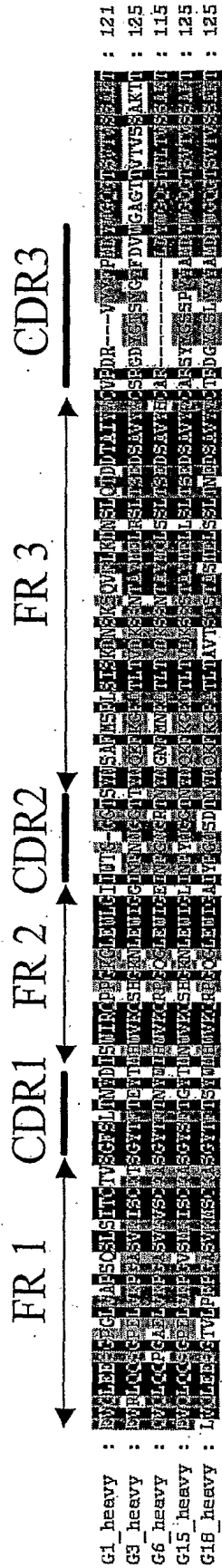


FIGURE 6 B

SARS-specific monoclonal antibodies, Heavy chains (VH), amino acid sequences

F26G3-VH

EVRLQQSGPELVKPGASVKISCKTSGYTFTEYTMHWVKQSHGKNLEWIGGINPNNGGTTYNQKFKG
KATLTVDKSSNTAYMELRSLTSEDSAVYYCSRGDYGYFDVWGAGTTVTVSSAKTTAPSVYPL
A

F26G7-VH

VELLESGTVLARPGASVKMSCEASGYTFTTYWMHWIKQRPQGQLEWIGAIYPGNSDTTYNQKFKGK
AKLTAVTSTSTAYMELSSLTNEDSAVYYCTREGIPQLLRMTDYWGQGTSTVTVSSAKTTTPPSV

F26G9-VH

VQLLESGTVLARPGASVKMSCKASGYSFTSYWMHWVKQRPQGQLEWIGAIYPGNSDTSYNQKFKGK
AKLTAVTSASTAYMELSSLTNEDSAVYYCTRSVYGYGYFDVWGAGTTVTVSSAKTTTPPSV

F26G10-VH

EVQLEESGTVLARPGASVKMSCKASGYSFTSYWMHWVKQRPQGGLDWIGAIYPENS DTSYNQKFKG
KAKLTAVTSASTAYMEHSSLTNEDSAVYYCTRSVYGYGYFDVWGAGTTVTVSSAKTTAPSVYPLA
PVCGDTTGSSVTLGCLVKGYFPEPVTLTWN SGLSSGVHTFPAVLQSDLYTLSSSVTVTSSTWPSQ
SITCNVAHPASSTKVDDKIEPRVPTSQN

F26G18-VH

IVQLEESGTVLPRPGASVKMSCKASGYTFTSYWMHWVKQRPQGQLEWIGAIYPGNSDTNYNQKFKG
RATLTAVTSTSTASMELSSLTNEDSAVYYCTRDGYGSLYYAMDFWGQGTSTVTVSSAKTTAPSVK

F26G19-VH

EVQLEESGTVLARPGASVKMSCKASGYTFTTYRMHWIKQRPQGQLEWIGAIYPGNSDTTYNQKFKD
KAKLTAVTSTSSAYMELSSLTNEDSAVYFCTREGIPQLLR TLDYWGQGTSTVTVSSAKTTAPSVYPL
A

F26G1-VH

EVQLEESGPGLVAPSQSL SITCTVSGFSLTNYDISWIRQPPGKGLEWLGI IWTGGGTSYNSAFMSR
LSISKDNSKSQVFLKMNSLQTD DTAIYYCVRDRVYFPM DYWGQGTSTVTVSSAKTTAPSVYPLA

F26G6-VH

MEWSWVFLFLVATATDVHSQVQLQQPGAELVKPGASVKV SCKASGYTFTNYWIHWVKQRPQGQLEW
IGEINPGNGRTNYNGNFMNKATLTVDKSSNTAYMQLSSLTSEDSAVYH CARLDYWGQGTTLTVSSA
KTTTPSV

F26G8-VH

VQLLESGAELVKPGASVKV SCKASGYTFTSYWIHWVKQRPQGQLEWIGEINPSNGRTNYNGNFESK
ATLTVDKSSNTAYMHLSSLTYEDSAVYHCTR LDYWGQGTTLTVSSAKTTAPSVYPLA

Neutralizing mAbs are in **bold text**.

FIGURE 7

SARS-specific monoclonal antibodies, Light chains (VL), amino acid sequences

F26G3-VL

DILMTQSP^{**TS**}FAVSLGQRATISCR^{**TS**}QSVSTSSYSYMH^{**WY**}Q^{**Q**}KPGQPPKLLIKYASNLESGV^{**PARF**}
SGSGSGSDFTLNHPVEEGDTATYYCQHSWEIPCAFGGGTKLEIKRADAAPTVS

F26G7-VL

ELVMTQSPSSLSASLGERVSLTCRASQEISGYLSWLQ^{**Q**}KPDGTIKRLIYAAS^{**TL**}D^{**SG**}VPKRFSGSR
SGSDYSLTISSEDFADYYCLQYISYPWTFGGG^{**TKLEIKRADAAPTVS**}

F26G9-VL

DILMTQSHKCMSTSVGDRVSITCKASQDVSTAVVWYQ^{**Q**}KPGQFPKLLIYWASTRHTGVPDRFTGSG
SGTDYTLTIS^{**SVQAEDLALYYCQ**}QHYTTPYTFGGG^{**TKLEIKRADAAPTVS**}

F26G10-VL

DILMTQSHKFMSTSVGDRVSITCKASQDVSTAVAWYQ^{**Q**}KPGQSPKLLIYWASTRHTGVPDRFTGSG
SGTDYTLTIS^{**VQAEDLALYYCQ**}QHYPYTFGGG^{**TKLEIKRADAAPTVS**}

F26G18-VL

ELVMTQSPSSLSASLGD^{**RV**}TISCRASQDISNYLNWYQ^{**Q**}KPDGTVKLLIYYTSRLHAGVPSR^{**FS**}GSG
SGTDYSLTISNLEQEDIATYFCQ^{**Q**}GYTLPTYTFGGG^{**TKLEIKRADAAPTVSKGEFQHTGGRY**}

F26G19-VL

DILMTQSPSSLSASLGERVSLTCRASQEISGYLSWLQ^{**E**}KPDGTIKRLIYAAS^{**TL**}D^{**SG**}VPKRFSGSR
SGSDYSLTISSEDFADYYCLQYVSY^{**P**}WTFGGG^{**TKLEIKRADAAPTV**}

F26G1-VL

ELVMTQSPV^{**S**}ITASRGEKVTITCRASS^{**SI**}SSNYLHWYQ^{**Q**}KPGSSPKLLIYRTSILASGVLDTFSGS
GSESSYTLTISCMQDEVAATYYCQ^{**Q**}GSSSPPHVRRGDQAGNKTG

F26G6-VL

ELVMTQSPASLSVATGKKVTIRCISSTDIDDDMNWYQ^{**Q**}KAGKPPKLLISEGNIFSPGVPSR^{**FSS**}SG
NGTDFVFTVENTLSE^{**DVADNYCLQ**}SDNMPFTFGSGTKLG^{**IKRADAAPTVS**}

F26G8-VL

ELVMTQSPASLSVITGKKVTIRCISNTDIDDDLNWSQLKAGEPPKLLISEGNIFSPGVPSR^{**FSS**}SG
NGTDFVFTIENTLSE^{**DVANNYCFQ**}SDNMPFTFGSGTKLEIKRADAAPTVS

Neutralizing mAbs are in bold text.

FIGURE 8

SARS-specific monoclonal antibodies, Heavy chains (VH), nucleotide sequences

F26G3-VH

ATGGAATGGAGCTGGGTCTTTCTCTTTCTCCTGTCAGGAACTGCAGGTGTCTCTCTGAGGTCCGG
CTGCAACAGTCTGGACCTGAAGCTGGTGAAGCCTGGGGCTTCAGTGAAGATATCTGCAAGACTTCT
GGATACACATTCAGTGAATACACCATGCACTGGGTGAAGCAGAGCCATGGAAAGAACCTTGAGTGG
ATTGGAGGTATTAATCCTAATAATGGTGGTACTACCTACAACCAGAAGTTTAAGGGCAAGGCCACA
TTGACTGTAGACAAGTCCCTCCAACACAGCCTACATGGAGCTCCGCAGCCTGACATCTGAGGATTCT
GCAGTCTATTATTGTTCAAGAGGGGACTACGGTACTAGCTACGGGTACTTCGATGTCTGGGGCGCA
GGGACCACGGTCACCGTCTCCTCAGCCAAAACAACAGCCCCATCGGTCTATCCACTGGCCA

F26G7-VH

GTGGAGCTGCTCGAGTCAGGGACTGTGCTGGCAAGGCCTGGGGCTTCAGTGAAGATGTCTCTGCGAG
GCTTCTGGCTACACCTTTACCACCTACTGGATGCACCTGGATAAAACAGAGGCCTGGACAGGGTCTG
GAATGGATTGGCGCTATTTATCCAGGAAATAGTGATACTACTACCTACAACCAGAAGTTCAAGGGCAAG
GCCAACTGACTGCAGTCACATCCACCAGCACTGCCCTACATGGAGCTCAGCAGCCTGACAAATGAG
GACTCTGCGGTCTATTACTGTACAAGAGAGGGGAATTCCTCAATTACTTCGGACTATGGACTACTGG
GGTCAAGGGACCTCAGTCACCGTCTCCTCAGCCAAAACAACACCCCCATCGGTCA

F26G9-VH

GTCCAGCTGCTCGAGTCTGGGACTGTGCTGGCAAGGCCTGGGGCTTCCTGTAAGATGTCTCTGCAAG
GCTTCTGGCTACAGCTTTACCAGCTACTGGATGCACCTGGGTAAAACAGAGGCCTGGACAGGGTCTA
GAATGGATTGGTGCTATTTATCCTGGAAATAGTGATACTAGCTACAACCAGAAGTTCAAGGGCAAG
GCCAACTGACTGCAGTCACATCCGCCAGTACTGCCCTACATGGAGCTCAGCAGCCTGACAAATGAG
GACTCTGCGGTCTATTACTGTACAAGATCCGTTTACTACGGCTACGGGTACTTCGATGTCTGGGGC
GCAGGGACCACGGTCACCGTCTCCTCAGCCAAAACAACACCCCCATCGGTCA

F26G10-VH

GAGGTGCAGCTGGAGGAGTCTGGGACTGTGCTGGCAAGGCCTGGGGCTTCCTGTAAGATGTCTCTGC
AAGGCTTCTGGCTACAGCTTTACCAGCTACTGGATGCACCTGGGTAAAACAGAGGCCTGGACAGGGT
CTAGATTGGATTGGTGCTATTTATCCTGAAAATAGTGATACTAGCTACAACCAGAAGTTCAAGGGC
AAGGCCAACTGACTGCAGTCACATCCGCCAGCACTGCCCTACATGGAGCACAGCAGCCTGACAAAT
GAGGACTCTGCGGTCTATTACTGTACAAGATCCGTTTACTACGGCTACGGGTACTTCGATGTCTGG
GGCGCAGGGACCACGGTCACCGTCTCCTCAGCCAAAGACAACAGCCCCATCGGTCTATCCACTGGCC
CCTGTGTGTGGAGATACAACCTGGCTCCTCGGTGACTCTAGGATGCCTGGTCAAGGGTTATTTCCCT
GAGCCAGTGACCTTGACCTGGAACCTCTGGATCCCTGTCCAGTGGTGTGCACACCTTCCCAGCTGTC
CTGCAGTCTGACCTCTACACCTCAGCAGCTCAGTGACTGTAACCTCGAGCACCTGGCCCAGCCAG
TCCATCACCTGCAATGTGGCCCCACCCGGCAAGCAGCACCAAGGTGGACAAGAAAATTGAGCCCAGA
GTGCCCAGTAGTCAGAAC

F26G18-VH

TTGGTGCAGCTGGAGGAGTCTGGGACTGTGTTGCCAAGGCCTGGGGCTTCAGTGAAGATGTCTCTGC
AAGGCTTCTGGCTACACCTTTACCAGCTACTGGATGCACCTGGGTAAAACAGAGGCCTGGACAGGGT
CTGGAATGGATTGGCGCTATTTATCCTGAAAATAGTGATACTAACTACAACCAGAAGTTCAAGGGC
AGGGCCACACTGACTGCAGTCACATCCACCAGCACTGCCCTCCATGGAGCTCAGCAGCCTGACAAAT
GAGGACTCTGCGGTCTATTACTGTACAAGAGACGGCTATGGTAGCCTTTATTACTATGCTATGGAC
TTCTGGGGTCAAGGAACCTCAGTCACCGTCTCCTCAGCCAAAACAACAGCCCCATCGGTCAAGGGC
GA

FIGURE 9 -1

F26G19-VH

GAGGTGCAGCTGGAGGAGTCTGGGACTGTGCTGGCAAGGCCTGGGGCTTCAGTGAAGATGTCCTGC
AAGGCTTCTGGCTACACCTTTACCACCTACCGGATGCACTGGATAAAACAGAGGCCTGGACAGGGT
CTGGAATGGATTGGCGCTATTTATCCTGGAAATAGTGATACTACCTACAACCAGAAGTTCAAGGAC
AAGGCCAAACTGACTGCAGTCAATCCACCAGCTCTGCCTACATGGAGCTCAGCAGCCTGACAAAT
GAGGACTCTGCGGTCTATTTCTGTACAAGAGAGGGAATCCCCAATTACTTCGGACTTTGGACTAC
TGGGGTCAAGGAACCTCAGTCAACGTCTCCTCAGCCAAAACAACAGCCCCATCGGTCTATCCACTG
GCC

F26G1-VH

TGAGGTGCAGCTGGAGGAGTCAGGACCTGGCCTGGTGGCGCCCTCACAGAGCCTGTCCATTACCTG
CACTGTCTCTGGGTTCTCATTAACGAATATGATATAAGCTGGATTGCGCAGCCACCAGGAAAGGG
TCTGGAGTGGCTTGGGAATAATATGGACTGGTGGAGGCACAAGTTATAATTTCAGCTTTTCATGTCCAG
ACTGAGCATCAGCAAGGACAACCTCCAAGAGCCAAGTTTTCTTAAAAATGAACAGTCTGCAAACCTGA
TGACACAGCCATATATTACTGTGTAAGAGATAGGGTCTACTACTTCCCTATGGACTACTGGGGTCA
AGGAACCTCAGTCACCGTCTCCTCAGCCAAAACAACAGCCCCATCGGTCTATCCACTGGCCA

F26G6-VH

ATGGAATGGAGCTGGGTCTTTCTCTTTTTGGTAGCAACAGCTACAGATGTCCACTCCCAGGTCCAA
CTGCAGCAGCCTGGGGCTGAACTGGTGAAGCCTGGGGCTTCAGTGAAAGTGTCTTGCAAGGCTTCT
GGCTACACCTTCACCAACTACTGGATACACTGGGTGAAGCAGAGGCCTGGACAGGGCCTTGAGTGG
ATTGGAGAGATTAATCCTGGCAACGGTCGTACTAACTATAATGGGAAC TTCATGAACAAGGCCACA
CTGACTGTAGACAAATCCTCCAACACAGCCTACATGCAACTCAGCAGCCTGACATCTGAGGACTCT
GCGGTCTATCACTGTGCAAGATTAGACTACTGGGGCCAAGGCACCACTCTCACAGTCTCCTCAGCC
AAAACAACACCCCCATCGGTC

F26G8-VH

GTCCAGCTGCTCGAGTCTGGGGCTGAACTGGTGAAGCCTGGGGCTTCAGTGAAAGTGTCTTGCAAG
GCTTCTGGCTACACCTTCACCAGCTACTGGATACACTGGGTGAAGCAGAGGCCTGGACAGGGCCTT
GAGTGGATTGGAGAGATTAACTCTAGCAACGGTCGTACTAACTATAATGGGAAC TTCGAGAGCAAG
GCCACACTGACTGTAGACAAATCCTCCAACACAGCCTACATGCACCTCAGCAGCCTGACATATGAG
GACTCTGCGGTCTATCACTGTACAAGATTAGACTACTGGGGCCAAGGCACCACTCTCACAGTCTCC
TCAGCCAAAACAACAGCCCCATCGGTCTATCCACTGGCC

Neutralizing mAbs are in **bold text**.

FIGURE 9-2

SARS-specific monoclonal antibodies, Light chains (VL), nucleotide sequences

F26G3-VL

GGGCCCAGCCGGCCGAGCTCGACATTCTGATGACCCAGTCTCCTACTTCCTTTGCTGTATCTCTGG
GGCAGAGGGCCACCATCTCATGCAGGACCAGCCAAAGTGTGAGTACATCTAGCTATAGTTATATGC
ACTGGTACCAACAGAAACCAGGACAGCCACCACAACTCCTCATCAAGTATGCATCCAACCTAGAAT
CTGGGGTCCCTGCCAGGTTTCAGTGGCAGTGGGTCTGGGTGAGACTTCACCCTCAACATCCATCCTG
TGGAGGAGGGGGATACTGCAACATATTACTGTCAGCACAGTTGGGAGATTCCGTGCGCGTTCCGGAG
GGGGGACCAAGCTGGAAATAAAACGGGCTGATGCTGCACCAACTGTATCC

F26G7-VL

GTGCCAGATGTGAGCTCGTGATGACCCAGTCTCCATCCTCCTTATCTGCCTCTCTGGGAGAAAGAG
TCAGTCTCACTTGTGCGGCAAGTCAGGAAATTAGTGGTTATTTAAGCTGGCTTCAGCAGAAACCAG
ATGGAACATATTAAACGCCTGATCTACGCCGCATCCACTTTAGATTTCGGGTGTCCCAAAAAGGTTCA
GTGGCAGTAGGTCTGGGTGAGATTATTCTCTCACCATCAGCAGCCTTGAGTCTGAAGATTTTGCAG
ACTATTACTGTCTACAATATATTAGTTATCCGTGGACGTTTCGGGGGAGGTACCAAGCTGGAATCA
AACGGGCTGATGCTGCACCAACTGTATCC

F26G9-VL

GACATTCTGATGACCCAGTCTCACAAATGCATGTCCACATCAGTAGGAGACAGGGTCAGCATCACC
TGCAAGGCCAGTCAGGATGTGAGTACTGCTGTAGTCTGGTATCAACAAAAACCAGGGCAATTTCT
AAACTACTGATTTACTGGGCATCCACCCGGCACACTGGAGTCCCTGATCGCTTCACAGGCAGTGGA
TCTGGGACAGATTATACTCTCACCATCAGCAGTGTGCAGGCTGAAGACCTGGCACTTTATTACTGT
CAGCAACATTATACCACTCCGTACACGTTTCGGAGGGGGACCAAGCTGGAATAAAACGGGCTGAT
GCTGCACCAACTGTATCC

F26G10-VL

GGGCCCAGCCGGCCGAGCTCGACATTCTGATGACCCAGTCTCACAAATTCATGTCCACATCAGTAG
GAGACAGGGTCAGCATCACCTGCAAGGCCAGTCAGGATGTGAGTACTGCTGTAGCCTGGTATCAAC
AAAAACCAGGGCAATCTCCTAACTACTGATTTACTGGGCATCCACCCGGCACACTGGAGTCCCTG
ATCGCTTCACAGGCAGTGGATCTGGGACAGATTATACTCTCACCATCAGCAGTGTGCAGGCTGAAG
ACCTGGCACTTTATTACTGTGCAACATTATAGCACTCCGTACACGTTTCGGAGGGGGGACCAAGC
TGGAATAAAACGGGCTGATGCTGCACCAACTGTATCC

F26G18-VL

GAGCTCGTGATGACCCAGTCTCCATCCTCCCTGTCTGCCTCTCTGGGAGACAGAGTCACCATCAGT
TGCAGGGCAAGTCAGGACATTAGCAATTATTTAAACTGGTATCAGCAGAAACCAGATGGAAGTGT
AAACTCCTGATCTATTACACATCAAGATTACACGCAGGAGTCCCATCAAGGTTTCACTGGCAGTGGG
TCTGGAACAGATTATTCTCTCACCATTAGCAACCTGGAGCAAGAAGATATTGCCACTTACTTTTGC
CAACAGGGTTATACGCTTCCGTACACGTTTCGGAGGGGGGACCAAGCTGGAATAAAACGGGCTGAT
GCTGCACCAACTGTATCCAA

F26G19-VL

GACATTCTGATGACCCAGTCTCCATCCTCCTTATCTGCCTCTCTGGGAGAAAGAGTCAGTCTCACT
TGTCGGGCAAGTCAGGAAATTAGTGGTTACTTTAAGCTGGCTTCAGGAGAAACCAGATGGAAGTATT
AAACGCCCTGATCTACGCCGCTTCCACTTTAGATTCTGGTGTCCCAAAAAGGTTCACTGGCAGTAGG
TCTGGGTGAGATTATTCTCTCACCATCAGCAGCCTTGAGTCTGAAGATTTTGCAGACTATTACTGT
CTACAATATGTTAGTTATCCGTGGACGTTTCGGTGGAGGCACCAAGCTGGAATCAAACGGGCTGAT
GCTGCACCAACTGTA

FIGURE 10-1

F26G1-VL

GTGCCAGATGTGAGCTCGTGATGACCCAGTCTCCAGTATCCATAACTGCATCTCGAGGGGAGAAGG
TCACCATCACCTGCCGTGCCAGCTCAAGTATAAGTTCCAATTACTTACACTGGTACCAGCAGAAGC
CAGGATCCTCCCCTAAACTTTTGATTATAGGACATCCATCCTGGCATCTGGAGTCTGGACACCT
TCAGTGGCAGTGGGTCTGAGAGCTCTTACACTCTGACAATCAGCTGCATGCAGGACGAAGTTGCTG
CCACTTACTATTGTCTAGCAGGGGAGTAGTAGCCACACACGTTTCGGAGGGGGGACCAAGCTGGAA
ATAAACCGGGCTGATGCTGCACCAACTGTATCCA

F26G6-VL

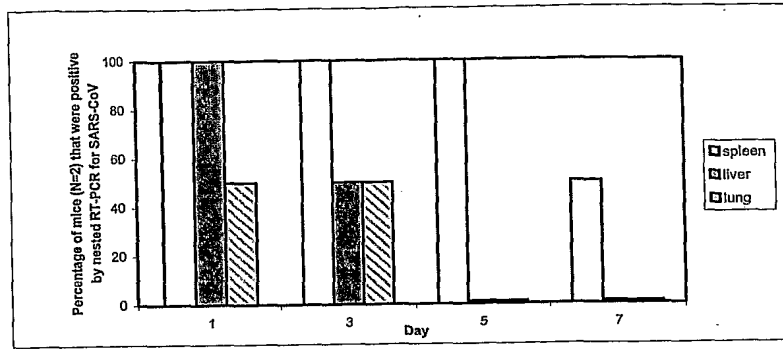
GTGCCAGATGTGAGCTCGTGATGACCCAGTCTCCAGCATCCCTGTCCGTGGCTACAGGAAAAAAG
TCACCATCAGATGCATAAGCAGCACTGACATTGATGATGATATGAACTGGTACCAGCAGAAGGCAG
GAAAACCTCCTAAACTCCTTATTTTCAGAAGGCAATATTTTTAGTCCTGGAGTCCCATCCCGATTCT
CCAGCAGTGGCAATGGCACAGATTTTGTTTTTACAGTTGAAAACACGCTCTCAGAAGATGTTGCAG
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AACGGGCTGATGCTGCACCAACTGTATCC

F26G8-VL

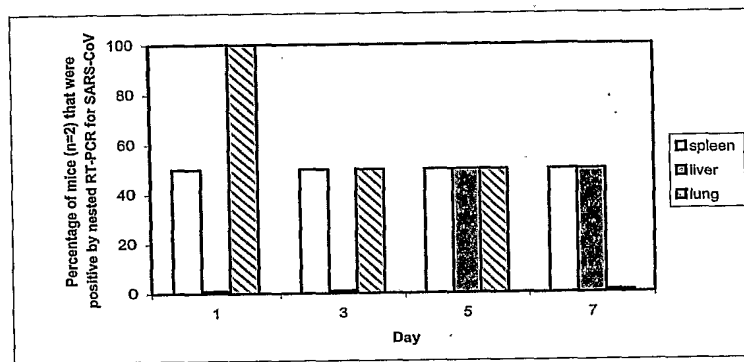
GTGCCAGATGTGAGCTCGTGATGACCCAGTCTCCAGCATCCCTGTCCGTGATTACAGGAAAAAAG
TCACCATCAGATGCATAAGCAACACTGACATTGATGATGATTTGAACTGGTCCCAGCTGAAGGCAG
GAGAACCTCCTAAACTCCTTATTTTCAGAAGGCAATATTTTTAGTCCTGGAGTCCCATCCCGATTCT
CCAGCAGTGGCAATGGCACAGATTTTGTTTTTACAATTGAAAACACGCTCTCAGAAGATGTTGCAA
ATAACTACTGTTTCCAAAGTGATAACATGCCATTACGTTTCGGCTCGGGGACAAAGTTGGGAATAA
AACGGGCTGATGCTGCACCAACTGTATCC

Neutralizing mAbs are in **bold text**.

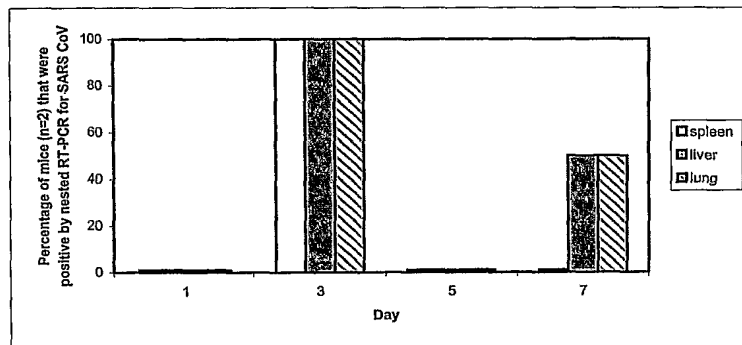
FIGURE 10-2



(A)

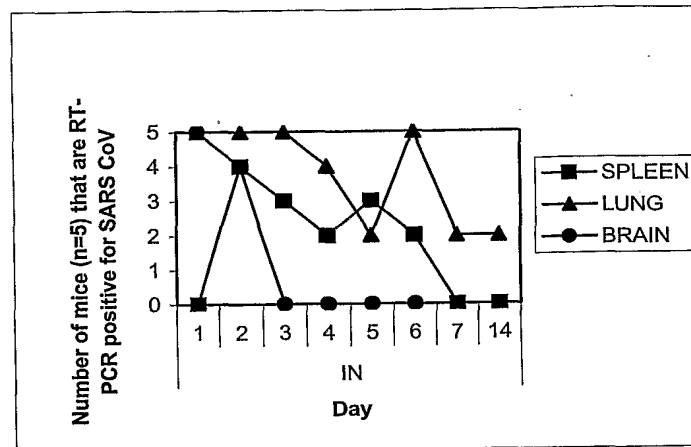


(B)

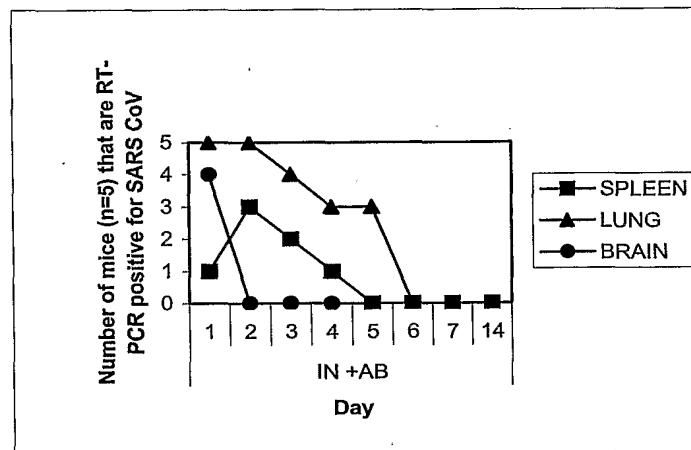


(C)

FIGURE 11



(A)



(B)

Figure 12

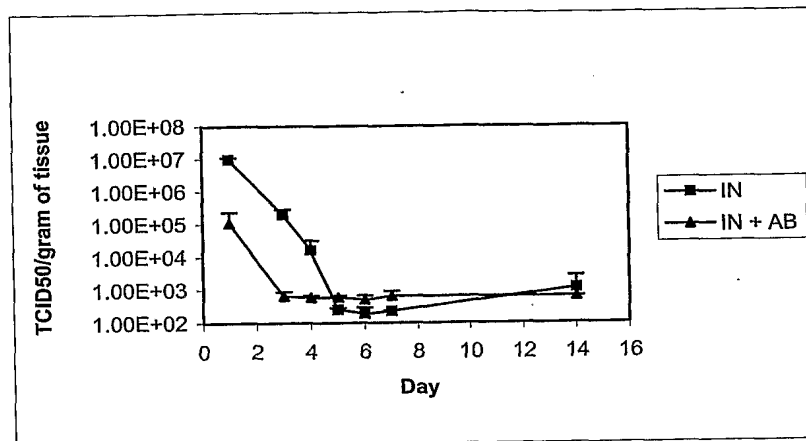


Figure 13